

# **CIRCUITS AND METHODS TO PROTECT A GATE DIELECTRIC ANTIFUSE**

## **ABSTRACT OF THE DISCLOSURE**

According to embodiments of the present invention, an antifuse circuit is operated  
5 by coupling an elevated voltage to a first terminal of an antifuse, controlling current in the  
antifuse with a program driver circuit coupled to a second terminal of the antifuse, and  
shunting current around the antifuse with a bypass circuit coupled between the first  
terminal of the antifuse and the program driver circuit to protect the antifuse. The  
antifuse includes a layer of gate dielectric between the first terminal and the second  
10 terminal. The embodiments of the present invention protect a gate dielectric antifuse.

"Express Mail" mailing label number: EV332567705US

Date of Deposit: February 3, 2004

This paper or fee is being deposited on the date indicated above with  
the United States Postal Service pursuant to 37 CFR 1.10, and is  
addressed to the Commissioner for Patents, Mail Stop Patent  
Application, P.O. Box 1450, Alexandria, VA 22313-1450.